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Patent claims

1. An optical transmission system (OTS) comprising a fixed number (N) of optical fiber line sections (FDS₁ to FDS₄) of virtually the same length with in each case an optical fiber (SSMF₁ to SSMF₄) and a dispersion compensation unit (DCF₁ to DCF₄), characterized in that the dispersion compensation units (DCF₁ to DCF₄) have virtually the same compensation values, which are determined starting from a calculated or estimated accumulated residual dispersion (D_{akk}) for an at least virtually uniformly distributed undercompensation of the fiber dispersion (d) of the fixed number (N) of optical fiber line sections (FDS₁ to FDS₄).
2. The optical transmission system as claimed in claim 1, characterized in that the dispersion compensation units (DCF₁ to DCF₄) are provided for compensating the fiber dispersion (d) of all the optical fiber line sections (FDS₁ to FDS₄).
3. The optical transmission system as claimed in one of claims 1 or 2, characterized in that a fiber line section (FDS₁) having an optical fiber (SSMF₁) and a dispersion compensation unit (DCF₁) implements an optical transmission module (M).
4. The optical transmission system as claimed in claim 3, characterized in that the optical transmission system (OTS) can be formed from a plurality of optical transmission modules (M) arranged in series.

AMENDED SHEET

5. The optical transmission system as claimed in one of claims 1 to 4, characterized in that the optical fibers (SSMF) of the fiber link sections (FDS) have a minimum length of 20 kilometers.

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6. The optical transmission system as claimed in one of claims 1 to 5, characterized in that a bidirectional data transmission can be implemented via the fiber line sections (FDS₁ to FDS₄).

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